

AMENDMENTS TO THE CLAIMS

1 to 12. (Cancelled)

13. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst, which catalyst comprises:

(A) a catalyst component A which comprises

(c) ceria or

(d) praseodymium oxide or

(e) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum;

(B) a catalyst component B which comprises

(d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier; and

(C) a catalyst component C which comprises

(f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese.

14. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst, which catalyst comprises:

an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises

- (A) (a) ceria or
 (b) praseodymium oxide or
 (c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and
 the catalyst component C comprises
- (C) (f) a solid acid, and
 (g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and
 an inner catalyst layer comprising a catalyst component B, as an inner catalyst component, wherein the catalyst component B comprises
- (B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and
 (e) a carrier.

15. (Previously Presented) A method as claimed in claim 13 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

16. (Previously Presented) A method as claimed in claim 14 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

17. (Currently Amended) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst, which catalyst comprises:

an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or

(b) praseodymium oxide or

(c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and

the catalyst component C comprises

(C) (f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and

an inner catalyst layer comprising a catalyst component A and a catalyst component C, as an inner catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or

(b) praseodymium oxide or

(c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and

the catalyst component ~~B~~ comprises B comprises

(B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier.

18. (Previously Presented) A method as claimed in claim 17 wherein at least one of the catalyst component A in the outer catalyst component and the catalyst component A in the inner catalyst component supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

19. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 13.

20. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 14.

21. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 15.

22. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 16.

23. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst

structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 17.

24. (Previously Presented) A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 18.

25. (Previously Presented) A catalyst for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, which catalyst comprises:

(A) a catalyst component A comprising

(c) ceria or

(d) praseodymium oxide or

(e) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum;

(B) a catalyst component B comprising

(d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier; and

(C) a catalyst component C comprising

(f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese.

26. (Previously Presented) A catalyst for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, which catalyst comprises:

an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or

(b) praseodymium oxide or

(c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and

the catalyst component C comprises

(C) (f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and

an inner catalyst layer comprising a catalyst component B, as an inner catalyst component, wherein the catalyst component B comprises

(B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier.

27. (Previously Presented) A catalyst as claimed in claim 25 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

28. (Previously Presented) A catalyst as claimed in claim 26 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

29. (Currently Amended) A catalyst for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, which catalyst comprises:

an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or

(b) praseodymium oxide or

(c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and

the catalyst component C comprises

(C) (f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and

an inner catalyst layer comprising a catalyst component A and a catalyst component C, as an inner catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or

(b) praseodymium oxide or

(c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and

the catalyst component ~~B~~ comprises B comprises

(B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier.

30. (Previously Presented) A catalyst as claimed in claim 29 wherein at least one of the catalyst component A in the outer catalyst component and the catalyst component A in the inner catalyst component supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

31. (Previously Presented) A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 25.

32. (Previously Presented) A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 26.

33. (Previously Presented) A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 27.

34. (Previously Presented) A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 28.

35. (Previously Presented) A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 29.

36. (Previously Presented) A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 30.